

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the present application:

Listing of Claims

1. (Original) A method of improving signal acquisition in a digital communication system comprising the steps of:

- (a.) determining a position of a mobile station;
- (b.) determining a relative position of the mobile station relative to a base station;
- (c.) estimating a chip delay based on the relative positions of the base station and the mobile station;
- (d.) adjusting the signal acquisition based on the estimated chip delay.

2. (Currently Amended) The method of claim 1 wherein the adjusting step (d.) includes changing the a pseudo-random code offset.

3. (Original) The method of claim 1 including the additional steps of:

- (e.) receiving base station position;
- (f.) storing base station position.

4. (Currently Amended) The method of claim 1 wherein the estimated chip delay is used to estimate the a timing of the spreading code.

5. (Original) The method of claim 1 including the additional steps of:

- (e) determining velocity;
- (f) updating the chip delay estimate based on velocity.

6. (Original) A method of improving signal acquisition in a digital communication system comprising the steps of:

- (a.) determining a position of a mobile station;
- (b.) determining a relative position of a mobile station relative to a base station;
- (c.) determining environment type based on relative position;
- (d.) adjusting signal acquisition based on the environment type;

7. (Original) A method of improving signal acquisition in a digital communication system comprising the steps of:

- (a.) determining a relative velocity of a mobile station with respect to a base station;
- (b.) estimating a Doppler frequency shift based on the relative velocity of the mobile station;
- (c.) adjusting signal acquisition frequency based on the Doppler shift.

8. (Original) A mobile station comprising;
a position determination device;
a processor coupled to the position determination device and configured to perform the following steps:

(a.) determining a position of a mobile station from the position determination device;

(b.) determining a relative position of the mobile station relative to a base station.

(c.) estimating a chip delay based on the relative position s of the base station and the mobile station;

(d.) adjusting the signal acquisition based on the estimated chip delay.

a memory coupled to the processor;

a transceiver coupled to the processor and configured to transmit and receive signals;

a first antenna coupled to the position determining device;

a second antenna coupled to the transceiver;

a mobile power source configured to power the processor;

a case enclosing the processor;

9. (Original) The mobile station of claim 8 wherein the first antenna and the second antenna are the same antenna.

10. (Original) The mobile station of claim 8 wherein the mobile station is a mobile handset.

11. (Currently Amended) The mobile station of claim 8 wherein the adjusting step (d) includes changing the a pseudo-random code offset.

12. (Original) The mobile station of claim 8 wherein the position determining device is a device that uses global positioning satellite signals to determine position.

13. (Original) A mobile station comprising:

a position determination device;

a processor coupled to the position determination device and configured to perform the following steps:

(a.) determining a position of a mobile station from the position determination device;

(b.) determining a relative position of a mobile station relative to a base station;

(c.) estimating a chip delay based on the relative positions of the base station and mobile station;

(d) adjusting the signal acquisition based on the estimated chip delay.

a memory coupled to the processor;

(e) receiving a position of a base station;

(f) storing base station position;

a memory coupled to the processor;

a transceiver coupled to the processor and configured to transmit and receive signals;

a first antenna couple to the position determining device;

a second antenna coupled to the transceiver;

a mobile power source configured to power the processor;

a case enclosing the processor;

14. (Original) The mobile station of claim 13 wherein the first antenna and the second antenna are a single antenna.

15. (Original) The mobile station of claim 13 wherein the mobile station is a first mobile station and the position determining device is a second mobile station that transmits position to the first mobile station.

16. (Original) A mobile station comprising:

a position determination device;

a processor coupled to the position determination device and configured to perform the following steps:

(a.) determining a position of a mobile station from the position determination device;

(b.) determining a relative position of a mobile station relative to a base station;

(c.) determining environment type based on relative position;

(d.) adjusting the signal acquisition based on the environment type.

a memory coupled to the processor;

a mobile power source configured to power the processor;

17. (Original) A mobile station comprising:

a position determination device;

a processor coupled to the position determination device and configured to perform the following steps:

(a.) determining a relative velocity of a mobile station with respect to a base station;

(b.) estimating a Doppler frequency shift based on the relative velocity of the mobile station;

(c.) adjusting signal acquisition frequency based on the Doppler shift.

a memory coupled to the processor;

a mobile power source configured to power the processor;